

What is claimed is:

1. A simultaneous recording and reproduction apparatus comprising:
  - an encoder which encodes first input signals to provide a first data stream;
  - a first buffer memory which accumulates the first data stream encoded by said encoder;
  - a data recorder which records the first data stream read from said first buffer memory to a recording medium;
  - a data reproducer which reproduces the first data stream, which has been recorded previously to the recording medium, as a second data stream;
  - a second buffer memory which accumulates the second data stream read from said data reproducer;
  - a decoder which reads the second data stream from said second buffer memory and encodes it as second signals; and
  - a system controller which sets coding rate for the first signals in said encoder;wherein said system controller controls said data recorder and said data reproducer to perform recording and reproduction alternately in time, and  
wherein when simultaneous recording and reproduction mode is set wherein recording of the first signals and reproduction of the second signals are performed at the same time, said system controller sets the coding rate of said encoder to a value smaller than that in normal recording mode wherein only the first signals are recorded.
2. The simultaneous recording and reproduction apparatus according to claim 1, wherein said system controller sets the coding rate in said encoder in simultaneous recording and reproduction mode equal to or smaller than a half of that in normal recording mode.
3. The simultaneous recording and reproduction apparatus according to claim 1, wherein the recording and reproduction for the recording medium are performed by a head.

4. The simultaneous recording and reproduction apparatus according to claim 1, wherein the first and second data streams are obtained as code data on visual or audio signals.

5. The simultaneous recording and reproduction apparatus according to claim 1, wherein the recording medium is an optical disk.

6. The simultaneous recording and reproduction apparatus according to claim 1, wherein said system controller updates management data on data recorded in the recording medium between recording and reproduction.

7. The simultaneous recording and reproduction apparatus according to claim 1, wherein said system controller inhibits the alternate recording and the reproduction when a recording position by said data recorder is separated from a reproduction position by said data reproducer more than a predetermined distance.

8. A simultaneous recording and reproduction apparatus comprising:  
an encoder which encodes first input signals to provide a first data stream;  
a first buffer memory which accumulates the first data stream encoded by said encoder;

a data recorder which records the first data stream read from said first buffer memory to a recording medium;

a data reproducer which reproduces the first data stream which has been recorded previously to the recording medium as a second data stream;

a second buffer memory which accumulates the second data stream read from said data reproducer;

a decoder which read the second data stream from said second buffer memory and encodes it as second signals; and

a system controller which sets coding rate for the first signals in said encoder;

wherein said system controller controls said data recorder and said data reproducer to perform recording and reproduction alternately in time, and

wherein when simultaneous recording and reproduction mode is set wherein recording of the first signals and reproduction of the second signals are performed at the same time, said system controller sets the coding rate in said encoder so that a sum of recording rate and reproduction rate in a predetermined period is smaller than a predetermined bit rate.

9. The simultaneous recording and reproduction apparatus according to claim 8, wherein the encoding by said encoder is variable bit rate encoding.

10. The simultaneous recording and reproduction apparatus according to claim 8, wherein the first and second signals are visual or audio signals.

11. The simultaneous recording and reproduction apparatus according to claim 8, wherein the recording and reproduction for the recording medium are performed by a head.

12. The simultaneous recording and reproduction apparatus according to claim 8, wherein the first and second data streams are obtained by encoding visual or audio signals.

13. The simultaneous recording and reproduction apparatus according to claim 8, wherein the recording medium is an optical disk.

14. The simultaneous recording and reproduction apparatus according to claim 8, wherein said system controller updates management data on data recorded in the recording medium between recording and reproduction.

15. The simultaneous recording and reproduction apparatus according to claim 8, wherein said system controller inhibits the alternate recording and reproduction when a recording position by said data recorder is separated from a reproduction position by said data reproducer more than a predetermined distance.

16. A simultaneous recording and reproduction apparatus comprising:  
an encoder which encodes first input signals to provide a first data stream;  
a first buffer memory which accumulates the first data stream encoded by said encoder;

a data recorder which records the first data stream read from said first buffer memory to a recording medium;

a data reproducer which reproduces the first data stream which has been recorded previously to the recording medium as a second data stream;

a second buffer memory which accumulates the second data stream read from said data reproducer;

a decoder which reads the second data stream from said second buffer memory and encodes it as second signals; and

a system controller which sets coding rate for the first signals in said encoder;

wherein said system controller controls said data recorder and said data reproducer to perform recording and reproduction alternately in time, and

wherein said encoder performs encoding at a variable bit rate and decreases bit rate for encoding when it detects that said first buffer memory is going to overflow.

17. The simultaneous recording and reproduction apparatus according to claim 16, wherein the first and second signals are visual or audio signals.

18. The simultaneous recording and reproduction apparatus according to claim 16, wherein the recording and reproduction for the recording medium are performed by a head.

19. The simultaneous recording and reproduction apparatus according to claim 16, wherein the first and second data streams are obtained by encoding visual or audio signals.

20. The simultaneous recording and reproduction apparatus according to claim 16, wherein the recording medium is an optical disk.

21. The simultaneous recording and reproduction apparatus according to claim 16, wherein said system controller updates management data on data recorded in the recording medium between recording and reproduction.